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| APPLICATION NO.                 | FILING DATE                           | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.   | CONFIRMATION NO. |
|---------------------------------|---------------------------------------|----------------------|-----------------------|------------------|
| 10/563,149                      | 02/09/2006                            | Pia Frei             | 5780                  | 1148             |
| 26936<br>SHOFMAKE               | 7590 11/16/2007<br>R AND MATTARE, LTD |                      | EXAMINER              |                  |
| 10 POST OFFICE ROAD - SUITE 110 |                                       |                      | CHEUNG, WILLIAM K     |                  |
| SILVER SPRI                     | NG, MD 20910                          |                      | ART UNIT PAPER NUMBER |                  |
|                                 |                                       |                      | 1796                  |                  |
|                                 |                                       |                      |                       |                  |
|                                 |                                       |                      | MAIL DATE             | DELIVERY MODE    |
|                                 |                                       |                      | 11/16/2007            | PAPER            |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|   | Application No.   | Applicant(s)   |  |
|---|---|--|--|
|   | 10/563,149  | FREI ET AL.  |  |
| Office Action Summary   | Examiner  | Art Unit   |  |
|   | William K. Cheung   | 1796   |  |
| The MAILING DATE of this communication app<br>Period for Reply  | ears on the cover sheet with the  | correspondence address   |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period was Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION  186(a). In no event, however, may a reply be tivil apply and will expire SIX (6) MONTHS from cause the application to become ABANDON | N. mely filed  n the mailing date of this communication. ED (35 U.S.C. § 133). |  |
| Status  |   |  |  |
| 1) Responsive to communication(s) filed on 28 At  | ugust 2007.   | •  |  |
| ·— · · · · · · · · · · · · · · · · · ·  | action is non-final.  |  |  |
| 3) Since this application is in condition for allowar   |   | osecution as to the merits is  |  |
| closed in accordance with the practice under E  | x parte Quayle, 1935 C.D. 11, 4   | 53 O.G. 213.   |  |
| Disposition of Claims   |   |  |  |
| 4)⊠ Claim(s) <u>11-17 and 20-24</u> is/are pending in the   | application.  |  |  |
| 4a) Of the above claim(s) is/are withdraw   | vn from consideration.  |  |  |
| 5) Claim(s) is/are allowed.   |   |  |  |
| 6)⊠ Claim(s) <u>11-17 and 20-24</u> is/are rejected.  |   |  |  |
| 7) Claim(s) is/are objected to.   | r alaatian raquiramant  |  |  |
| 8) Claim(s) are subject to restriction and/or   | election requirement.   |  |  |
| Application Papers  |   |  |  |
| 9) ☐ The specification is objected to by the Examine  | г.  |  |  |
| 10) The drawing(s) filed on is/are: a) acce   | epted or b) objected to by the  | Examiner.  |  |
| Applicant may not request that any objection to the   | •   | ` ·  |  |
| Replacement drawing sheet(s) including the correct  |   |  |  |
| 11)☐ The oath or declaration is objected to by the Ex   | aminer. Note the attached Office  | e Action or form PTO-152.  |  |
| Priority under 35 U.S.C. § 119  |   |  |  |
| 12)⊠ Acknowledgment is made of a claim for foreign a)⊠ All b)□ Some * c)□ None of:  | priority under 35 U.S.C. § 119(a  | a)-(d) or (f).   |  |
| 1. Certified copies of the priority documents   | s have been received.   |  |  |
| 2. Certified copies of the priority documents   | s have been received in Applica   | tion No  |  |
| 3. Copies of the certified copies of the prior  | · ·   | ed in this National Stage  |  |
| application from the International Bureau   |   |  |  |
| * See the attached detailed Office action for a list  | of the certified copies not receiv  | ed.  |  |
|   |   |  |  |
| Attachment(s)   | . —   |  |  |
| Notice of References Cited (PTO-892)     Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 4) Interview Summar<br>Paper No(s)/Mail D   |  |  |
| 3) Information Disclosure Statement(s) (PTO/SB/08)  | 5) 🔲 Notice of Informal   |  |  |
| Paper No(s)/Mail Date   | 6)  |  |  |

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#### **DETAILED ACTION**

1. The examiner acknowledges the receipt of the amendment filed August 28, 2007. Claims 11-17, 20-24 are pending.

## Claim Rejections - 35 USC § 112

- 2. The following is a quotation of the first paragraph of 35 U.S.C. 112:
  - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 3. Claims 11-17, 20-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.
- Claim 11 (line 2-3), claim 12 (line 3), claim 16 (line 2), the recitation "a diblock fraction of more than 40%" is considered non-enabling because the specification fails to provide a way to define what "a diblock fraction" is, and a method of how it is determined or measured.

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Applicant's arguments filed August 28, 2007 have been fully considered but they are not persuasive. Applicants argue that the recited "diblock content" of claim 11 is well known to the people of ordinary skill in the art to mean "portion of a block copolymer which is formed on only two blocks". However, applicants fail to recognize that a block copolymer can be considered either "a diblock copolymer" or "not a diblock copolymer", not something in between characterized by "a diblock content". If there is such a copolymer that is partially diblocked, applicants are required to provide experimental method in the specification to enable such characterization.

Regarding the list of patent numbers cited for the argument, applicants must recognize that patent applications are individually examined. Regarding the "diblock content" in Kraton ™ D-1119P, applicants fail to recognize that Kraton ™ D-1119P is a mixture of SIS triblock copolymer and SI diblock copolymer. However, there is not an indication that the claimed "an elastomeric block copolymer" is a mixture of triblock and diblock copolymers.

## Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 11-13, 16-17, 20-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang (US 6,428,900 B1), for the reasons adequately set forth from paragraph 7 of the non-final office action of May 23, 2007.

The invention of claims 11-24 relates to an **adhesive composition** containing

(a) **an elastomeric block copolymer** having a diblock content of more than

40%;

- (b) a sulfonated copolyester;
- (c) if desired, further auxiliary additives.

Wang (abstract; col. 1, line 5-22; col. 3, line 36 to col. 4, line 17) discloses a water-sensitive hot melt adhesive composition based on about 10% to about 90% by weight of one or more sulfonated polyester copolymer(s), and a broad range composition of plasticizer(s), tackifier(s), and stabilizer(s). Regarding the claimed elastomeric block copolymer, Wang (col. 17-18, claims 5-6) clearly teaches elastomeric block copolymers having a melting pointer greater than 50°C (solid at room temperature). Regarding claims 22-23, Wang (col. 1, line 23-46) discloses various applications that meet the features of claims 22-23. Regarding claim 24, Wang (col. 6, line 66 to col. 7, line 6) clearly discloses the use of multifunctional monomers for preparing the taught sulfonated polyesters. Therefore, the examiner has a reasonable basis that the claimed "branched" feature is inherently possessed in Wang. In view of

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the broad range of composition of components (a) and (b) of claim 12, the rejection of claims 12, 13 by Wang is adequate and proper.

In view of the 112 rejection set forth, the claims are adequately anticipated by Wang.

## Claim Rejections - 35 USC § 103

- 6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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7. Claims 14, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (US 6,428,900 B1) for the reasons adequately set forth from paragraph 9 of the non-final office action of May 23, 2007.

Wang (abstract; col. 1, line 5-22; col. 3, line 36 to col. 4, line 17) discloses a water-sensitive hot melt adhesive composition based on about 10% to about 90% by weight of one or more sulfonated polyester copolymer(s), and a broad range composition of plasticizer(s), tackifier(s), and stabilizer(s). Wang (col. 6, line 66 to col. 7, line 6) clearly discloses the use of multifunctional monomers for preparing the taugh sulfonated polyesters. Therefore, the examiner has a reasonable basis that the claimed "branched" feature is inherently possessed in Wang.

The difference between Wang and claims 14, 15 is that Wang discloses adhesive compositions do not contain an elastomeric styrene block copolymer or styrene-isoprene block copolymer.

However, Wang (col. 1, line 50) discloses other suitable polymers such as styrene-isoprene-styrene block copolymer for hot melt adhesive applications. In view of substantially identical utilities (or functions) between the styrene-isoprene-styrene block copolymer and the disclosed sulfonated polyester copolymers as taught in Wang, it would have been obvious to one of ordinary skill in art incorporate the styrene-isoprene-styrene block copolymer teachings or partially replace the sulfonated copolyester

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component of adhesive composition of Wang with styrene-isoprene-styrene block copolymer to obtain the invention of claims 14, 15.

#### Response to Arguments

8. Applicant's arguments filed August 28, 2007 have been fully considered but they are not persuasive. Applicants argue that the recited "diblock content" of claim 11 is well known to the people of ordinary skill in the art to mean "portion of a block copolymer which is formed on only two blocks". However, applicants fail to recognize that a block copolymer can be considered either "a diblock copolymer" or "not a diblock copolymer", not something in between characterized by "a diblock content". If there is such a copolymer that is partially diblocked, applicants are required to provide experimental method in the specification to enable such characterization.

Regarding the list of patent numbers cited for the argument, applicants must recognize that patent applications are individually examined. Regarding the "diblock content" in Kraton ™ D-1119P, applicants fail to recognize that Kraton ™ D-1119P is a mixture of SIS triblock copolymer and SI diblock copolymer. However, there is not an indication that the claimed "an elastomeric block copolymer" is a mixture of triblock and diblock copolymers.

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Applicants argue that Wang does not disclose the diblock fraction as claimed. However, it is unclear according to applicants' specification on how a diblock fraction is measured or obtained. Therefore, applicants' argument is not supported by the claims or by applicants' specification. Regarding applicants' argument that Wang (col. 1, line 59-62) teaches away from the instantly claimed invention. However, applicants fail to recognize that Wang does not indicate that the short comings are directly related to the styrene containing block copolymers. Regarding applicants' argument that the specification (2006/0211808, page 3, Table 1) contain unexpected results to show the criticality of the claimed invention, applicants fail to recognize that the argued Table 1 does not comprise a comparative example that is based on the teachings of Wang.

#### Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K. Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

William K. Cheung, Ph. D.

Primary Examiner

November 4, 2007

WILLIAM K. CHEUNG PRIMARY EXAMINER